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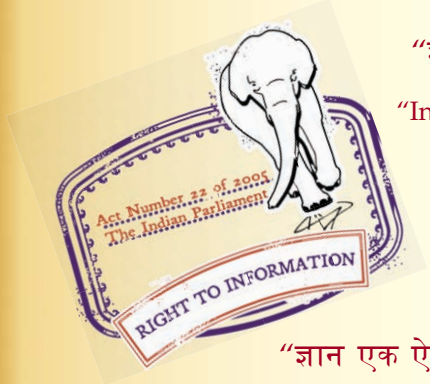
IS 3165 (1990): Textile Machinery - Beam, Weaver's, for Use in Plain Calico Loom [TXD 14: Machinery for Fabric Manufacture]



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IS 3165 : 1990
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Indian Standard

TEXTILE MACHINERY — BEAM, WEAVER'S, FOR USE IN PLAIN CALICO LOOM — SPECIFICATION

(First Revision)

भारतीय मानक

वस्त्रादि मशीनरी — सादे कैलिको करघे में प्रयोग के लिए बुनकर की तीर (बीम) — विशिष्टि

(पहला पुनरीक्षण)

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BUREAU OF INDIAN STANDARDS
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NEW DELHI 110002

November 1990

Price Group 2

FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards after the draft finalized by the Machinery for Fabric Manufacture (Excluding Knitting) Sectional Committee had been approved by the Textile Division Council.

This standard was originally published in 1965. The first revision has been taken up to bring it in line with the prevailing manufacturing practices in the country in requirements of steel for beam flange and deleting of minimum tensile strength of the material for various components.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

AMENDMENT NO. 1 OCTOBER 1992
TO
IS 3165 : 1990 TEXTILE MACHINERY — BEAM, WEAVER'S, FOR USE IN PLAIN CALICO LOOM — SPECIFICATION

(First Revision)

(*Page* 1, *clause* 4.1, *Table* 1, *Reference*) — Insert 'IS 1079 : 1988*' along with the existing IS 513 : 1986 against 'mild steel sheet'.

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*Hot rolled carbon steel sheet and strip (*fourth revision*).

(TX 14)

Reprography Unit, BIS, New Delhi, India

Indian Standard

TEXTILE MACHINERY — BEAM, WEAVER'S, FOR USE IN PLAIN CALICO LOOM — SPECIFICATION

(First Revision)

1 SCOPE

1.1 This standard prescribes the requirements for weaver's beam for use in plain calico looms for cotton and other spun yarns.

1.2 This standard is not applicable to the weaver's beam used in conjunction with automatic let-off motions.

2 REFERENCES

2.1 The following Indian Standards are necessary adjuncts to this standard:

IS No.	*Title*
513 : 1986	Cold rolled low carbon steel sheets and strips (*third revision*)
617 : 1975	Aluminium and aluminium alloy ingots and castings for general engineering purposes (*second revision*)
1239 (Part 1) : 1979	Mild steel tubes, tubulars and other wrought steel fittings: Part 1 Mild steel tubes (*fourth revision*)
2107 : 1977	Whiteheart malleable iron castings (*first revision*)
2108 : 1977	Blackheart malleable iron castings (*first revision*)
2500 (Part 1) : 1973	Sampling inspection tables: Part 1 Inspection by attributes and by count of defects
6911 : 1972	Stainless steel plate, sheet and strip

3 TERMINOLOGY

3.1 For the purpose of this standard, *reed space* shall mean the maximum space available on the loom for the insertion of a reed, that is, the overall width of the reed which can be fixed on the loom.

4 MATERIAL

4.1 Different components of the weaver's beam shall be manufactured from materials given in Table 1.

5 GENERAL REQUIREMENTS

5.1 Shape

The shape of a beam shall be generally as shown in Fig. 1 and shall comprise a barrel and two flanges. If desired by the buyer, the beam shall be supplied with two ruffles.

5.2 The distance(s) between two consecutive knot holes in the barrel of the beam as shown in Fig. 1 shall be 150 mm nominal or as agreed to between the buyer and the seller.

5.3 Freedom from Defects

The barrels, the beam flange and the ruffles shall have smooth finish and shall be free from scratch, crack, any trace of rust, burr, blow-hole and any other surface defects.

Table 1 Materials for Components in Weaver's Beam

(*Clause* 4.1)

Sl No.	Name of Component	Material	Reference
i)	Barrel (*see* Note)	Mild steel tube	IS 1239 (Part 1) : 1979
ii)	Flange	a) Sheet:	
		—Mild steel	IS 513 : 1986
		or	
		—Stainless steel	IS 6911 : 1972
		or	
		b) Casting:	
		—Aluminium alloy	IS 617 : 1975
		or	
		—Malleable iron	IS 2107 : 1977 or IS 2108 : 1977
iii)	Ruffle	Malleable iron casting	IS 2107 : 1977 or IS 2108 : 1977

NOTE — Depending on outside diameter and overall length of the tube, the wall thickness of tube shall be as agreed to between the buyer and the seller.

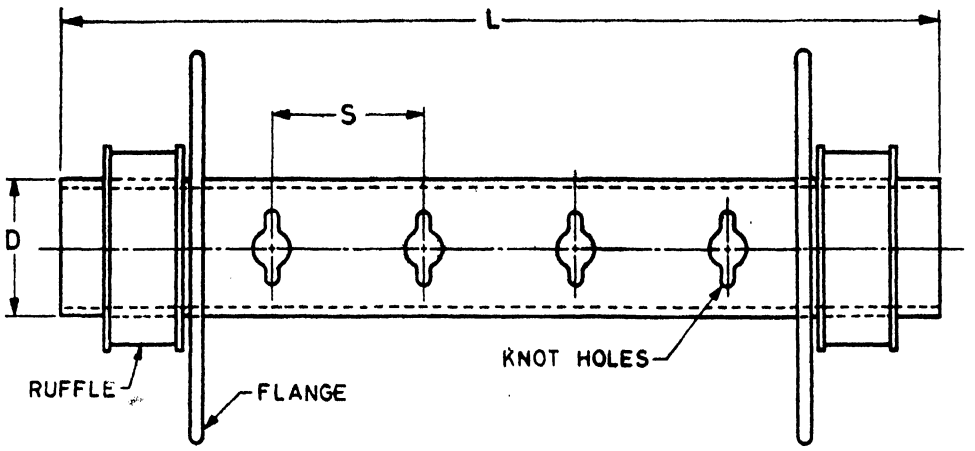

FIG. 1 WEAVER'S BEAM FOR PLAIN CALICO LOOM

6 SPECIFIC REQUIREMENTS

6.1 Barrel

6.1.1 *Diameter*

The barrel shall be seamless. The diameter (*D*) of the barrel of the beam shall be 100 mm, 125 mm or as agreed to between the buyer and the seller.

6.1.2 *Overall Length of Barrel*

The overall length of the barrel shall be as agreed to between the buyer and the seller which is generally reed space plus 150 to 300 mm.

6.2 Beam Flange

6.2.1 The diameter of the beam flange shall be 300, 350, 400, 450, 500, 550, 600 or 700 mm as agreed to between the buyer and the seller.

6.2.2 The thickness of beam flange shall be minimum 3 mm when made of sheet and the rim width shall be at least double the sheet thickness. Sheet beam flanges shall have suitable ribs for strengthening. In case of beam flanges made of aluminium or iron casting, the thickness shall be 6 to 9 mm depending upon the diameter of the flange and the rim width of the flange shall be 16 to 20 mm.

6.2.3 The flanges when secured to be barrel by suitable means shall be true running. However, axial run-out at a height of 300 mm shall not exceed 2 mm.

6.3 Ruffle

If the beams are supplied with ruffles, the dimensions of the ruffles shall comply with the requirements of Table 2 when read with Fig. 2.

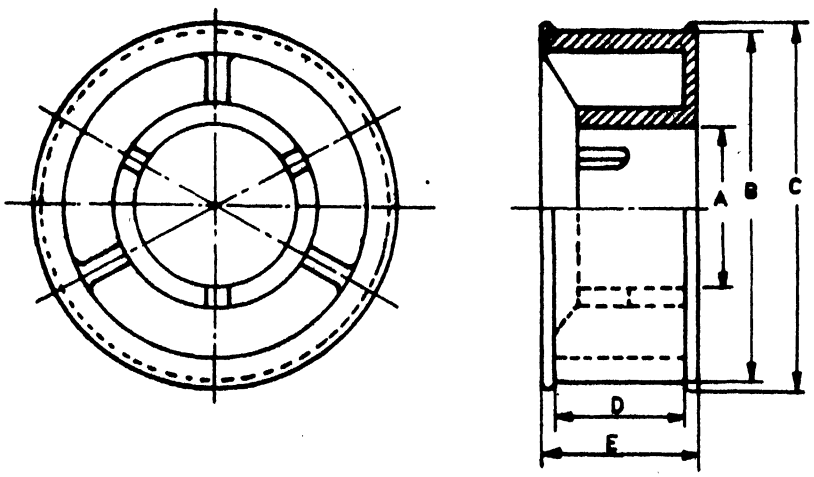

FIG. 2 DIMENSIONS OF RUFFLES FOR WEAVER'S BEAM

Table 2 Dimensions of Ruffles

(*Clause* 6.3 and *Fig.* 2)

All dimensions in millimetres.

Bore of Ruffle	Ruffle Diameter	Diameter of the Flange of Ruffle	Rope or Chain Space	Overall Width of Ruffle
A	*B*	*C*	*D*	*E*
Equal to the diameter of barrel required	200	210	75	90
	250	269	90	100

6.3.1 Ruffles when secured to the barrel by any suitable means shall be concentric with the barrel.

6.4 Rust-Proofing Treatment

The barrel of the beam shall be galvanized or treated with suitable rust-proofing agents to prevent corrosion and rusting.

7 MARKING

7.1 If the beam is sold as a unit, that is, barrel and flange together, each such unit shall be marked with the following:

a) Indication of the source of manufacture,

b) Indication of flange material, and

c) Length of barrel diameter of barrel x diameter of flange.

7.2 If the barrel and flange for weaver's beam are sold separately, they shall be marked as follows:

a) Indication of the source of manufacture, and

b) i) Barrel — Length and diameter of barrel;
ii) Flange —
1) Indication of the flange material; and
2) Bore diameter x diameter of flange.

7.3 Each barrel and flange may also be marked with the Standard Mark, details for which may be obtained from the Bureau of Indian Standards.

8 SAMPLING

8.1 Samples shall be drawn in accordance with the double sampling plan given in Table 3 of IS 2500 (Part 1) : 1973 at Inspection Level III and 2·5 percent AQL.

Standard Mark

The use of the Standard Mark is governed by the provisions of the *Bureau of Indian Standards Act, 1986* and the Rules and Regulations made thereunder. The Standard Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well defined system of inspection, testing and quality control which is devised and supervised by BIS and operated by the producer. Standard marked products are also continuously checked by BIS for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

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